APPARATUS, METHODS, AND COMPUTER PROGRAM PRODUCTS FOR REDUCING THE NUMBER OF COMPUTATIONS AND NUMBER OF REQUIRED STORED VALUES FOR INFORMATION PROCESSING METHODS

ABSTRACT OF THE DISCLOSURE

Apparatus, methods, and computer program products are provided for generating a second set of equations requiring reduced numbers of computations from a first set of general equations, wherein each general equation defines coefficients in terms of a set of samples and a plurality of functions having respective values. A first set of tokens is initially assigned to the plurality of functions such that every value of the functions that has a different magnitude is assigned a different token, thereby permitting each general equation to be defined by the set of samples and their associated tokens. Each general equation is then evaluated and the samples having the same associated token are grouped together. A second set of tokens is then assigned to represent a plurality of unique combinations of the samples. The second set of equations is then generated based at least on the first and second sets of tokens.